

Fraxinus pennsylvanica 'Summit': 'Summit' Green Ash¹

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Introduction

'Summit' Green Ash grows into a pyramidal form when young, maturing to a rather open, oval silhouette 55 feet tall by 50 feet wide. Once developed properly in the nursery, the trunk remains straight up through the crown of the tree and the branch habit is reported to be better than the species. Early pruning helps assure that this happens. The trees grow quickly and can sometimes reach 80 feet in



Figure 1. Middle-aged *Fraxinus pennsylvanica* 'Summit': 'Summit' Green Ash

Credits: Ed Gilman

height. Green to reddish-purple flowers appear in spring but do not produce fruit since the plant is supposedly a male. But some horticulturists believe that there are female trees mixed with the population. If the tree truly is a male, this could make this a superior replacement for the once very popular 'Marshall Seedless' which has some female trees mixed with the population and now some trees are fruiting. 'Marshall Seedless' is also reportedly susceptible to storm damage, although some of this could be due to improper or no pruning. Unlike other Green Ashes which have unpredictable fall color, 'Summit' displays foliage of an intense golden-yellow. The attractive bark is red-tinged and furrowed and reportedly thicker than other Ashes.

General Information

Scientific name: *Fraxinus pennsylvanica*

Pronunciation: FRACK-sih-nus pen-sill-VAN-ih-kuh

Common name(s): 'Summit' Green Ash

Family: *Oleaceae*

USDA hardiness zones: 3B through 8B (Fig. 2)

Origin: native to North America

Invasive potential: little invasive potential

Uses: reclamation; urban tolerant; shade; street without sidewalk; parking lot island > 200 sq ft; sidewalk cutout (tree pit); tree lawn > 6 ft wide; highway median

Availability: not native to North America

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Figure 2. Range

Description

Height: 55 to 60 feet

Spread: 50 to 60 feet

Crown uniformity: symmetrical

Crown shape: upright/erect, pyramidal, oval

Crown density: moderate

Growth rate: fast

Texture: medium

Foliage

Leaf arrangement: opposite/subopposite (Fig. 3)

Leaf type: odd-pinnately compound

Leaf margin: crenate, serrate, entire

Leaf shape: ovate, lanceolate

Leaf venation: pinnate

Leaf type and persistence: deciduous

Leaf blade length: 2 to 4 inches

Leaf color: green

Fall color: yellow

Fall characteristic: showy



Figure 3. Foliage

Flower

Flower color: green

Flower characteristics: not showy

Fruit

Fruit shape: elongated

Fruit length: 1 to 3 inches

Fruit covering: dry or hard

Fruit color: tan

Fruit characteristics: attracts birds; showy; fruit/leaves a litter problem

Trunk and Branches

Trunk/bark/branches: branches don't droop; not showy; typically one trunk; thorns

Pruning requirement: needed for strong structure

Breakage: resistant

Current year twig color: brown, gray

Current year twig thickness: thick

Wood specific gravity: 0.56

Culture

Light requirement: full sun

Soil tolerances: clay; sand; loam; acidic; alkaline; well-drained; extended flooding

Drought tolerance: high

Aerosol salt tolerance: moderate

Other

Roots: can form large surface roots

Winter interest: no

Outstanding tree: no

Ozone sensitivity: unknown

Verticillium wilt susceptibility: susceptible

Pest resistance: sensitive to pests/diseases

Use and Management

'Summit' Green Ash appears to maintain a straight leader and does not branch into a double or multiple trunk unless it is pruned improperly and topped. Topping is not a good practice and topped trees should not be planted because they will not stay together in a strong storm. Be sure that they have one central leader (one trunk) and branches which are well spaced along that trunk.

'Summit' Green Ash adapts well to city street tree planting pits and other confined soil spaces, and grows in wet or dry soils, acid or alkaline. Like some other rapidly-growing trees, surface roots can develop and become a nuisance as they lift curbs, sidewalks and make mowing difficult, particularly in clay soil. Planting only in well-drained uncompacted soil may help keep surface rooting in check. Using root barriers around the edge of planting pits and along sidewalks would deflect roots down, encouraging

deeper rooting and less maintenance problems. The roots can tolerate the low soil oxygen conditions present at these greater soil depths. Trees transplant easily from field nurseries or from containers and although its native habitat is moist streambanks and bottomlands, it adapts to urban soils including those with high pH, salt and droughty sites.

Propagation is by grafting buds onto seedling rootstock.

Pests

The most common borers infesting Ash are Ash borer, lilac borer and carpenterworm. Borers are common on Green Ash, particularly those recently transplanted or under stress from other problems. Ash borer bores into the trunk at or near the soil line causing tree dieback. Lilac borer causes swellings on the trunk and limbs where the insect enters the tree. The carpenterworm larvae bore into the heartwood but come to the outside of the tree to push out frass and sawdust. Heavily infested trees can be severely weakened. Keep trees as healthy as possible by fertilizing regularly and watering during dry weather.

Aphids are often seen but are usually not serious.

In late summer, fall webworm covers branches with webbing. The nests in branches close to the ground can be pruned out when first noticed.

The Ash flower-gall looks like a disease but is actually a mite problem. The mites feed on the flowers causing abnormal growth. The galls dry out and persist on the tree into winter.

Diseases

A rust disease causes distorted leaves and swollen twigs. Small, yellow, cup-like structures, producing yellow spores, appear on the infected areas. Controls are usually not needed.

A number of fungi cause leaf spots on Ash. The disease is worse in wet years and is partially controlled by gathering and disposing of diseased, fallen leaves.

Anthracnose is also called leaf scorch and leaf spot. Infected parts of the leaves turn brown, especially along the margins. Infected leaves fall prematurely. Rake up and destroy infected leaves. Chemical controls are not practical or economical on large trees.

Canker diseases cause branch dieback and death of the tree when the trunk is infected. Try to keep trees healthy with regular fertilization.

Powdery mildew makes a white coating on the leaves.

Ash ring spot virus causes chlorotic green and reddish spots or rings on the leaves. Infected trees may be stunted and dieback, but usually this is a minor problem.

Verticillium wilt causes branches of infected trees to wilt and die, eventually the entire tree may die. Keep trees healthy and fertilize infected trees with high nitrogen fertilizer to suppress disease symptoms.